

From the tombs of Egypt the housefly is pictured, not un-  
plentifully. A gadfly is drawn chasing a cow. Grasshoppers  
are often drawn, but in no instance as well as some from Chaldæa.  
Of the butterflies, the two best are given in our cuts. The ear-  
liest in the world is shown in Fig. 10. It dates from about 1,700  
B. C. The whole picture is on a tomb near Thebes. It is a fine  
relief carving. A nobleman is seated in a wicker chair, fishing in  
the Nile. Above his head is flying a butterfly. The artist was  
not familiar with the four-wingedness of his model.

From the unwrapping of human mummies many insects have  
come to light, some probably accidental introductions, a few  
separately and carefully wrapped. *Necrobia rufipes* might have  
been an accident. So probably was a specimen of *Lucilia cæsar*,  
a cosmopolitan flesh fly. A Buprestid and a Cantharid beetle  
were clearly intentionally preserved.

The mosquito is neither pictured nor alluded to. It was left to  
Herodotus to mention that creature in his Egyptian narrative,  
although it is not differentiated from pestiferous biting insects  
generally. He relates that they were so numerous near the  
mouth of the Nile that the fisherman used nets to fish by day and  
escape the mosquitos by night.

---

## NEW NORTH AMERICAN SPECIES OF NOTOXUS.

BY H. C. FALL, Pasadena, Cal.

A recent survey of the material in my cabinet in this genus re-  
vealed the presence of a number of new species, which are here-  
with described. It is a notable fact that in two of the new forms  
and also in *montanus* Csy.—which was described from a unique  
female—the anterior tibiæ are found to be toothed in the male, a  
character hitherto known only in *calcaratus*.

### Notoxus Geoff.

*Notoxus nuperoides* n. sp. Form and size of *nuperus*, with which also  
it agrees precisely in elytral markings. Head and thorax rufotestaceous,  
the latter broadly suffused with blackish on the disk, except for a narrow  
median line; elytra rufotestaceous, with the sides, apex and a post-median

fascia which extends forward along the suture becoming broader at base, black; or the elytra may be defined as black, each with a somewhat oblique gradually widening stripe extending from the humerus to the middle, and a subapical lunate spot, rufotestaceous. Recumbent pubescence rather dense, and bristling throughout—more especially on the elytra—with numerous long semi-erect hairs; punctuation fine, somewhat closer and more distinct on the elytra than elsewhere. Head and antennæ nearly as in *nuperus*, the tempora, however, a little less strongly oblique than in the latter. Pronotal horn two fifths as wide as the prothorax, distinctly margined, the margin dentellate at sides posteriorly; crest with feebly reflexed non-dentellate margin. Sutural angles of the elytra (♂) separately rounded and just perceptibly produced, with a feeble external sinuation. Body beneath darker rufous, the abdomen piceous, the last segment somewhat paler.

Length 4 mm.; width 1.2 mm.

The unique type is a male, having the last ventral segment squarely truncate at apex and broadly transversely impressed throughout its width; it was taken at Silver City, New Mexico, by Mr. J. B. Wallis, from whom I received it.

As already observed, this species is nearly identical with *nuperus* in elytral markings and by Casey's table would be associated with it. The latter species however entirely lacks the erect hairs of the upper surface, and the form of the elytral apices, and the impression of the last ventral in the male are different.

*Notoxus brevicornis* n. sp. Rufous, head, prothorax above (except the horn) and abdomen more or less suffused with piceous; elytra black with two paler fasciæ, one before the middle, narrowest at suture, gradually widened, and produced anteriorly at sides so as to include the humeri; the other behind the middle, narrower, biarcuate. Pubescence moderately dense, intermixed on the elytra with short semi-erect hairs which are not very conspicuous except in profile; punctuation moderate, integuments somewhat shining. Antennæ about as long as the head and prothorax, very feebly incrassate apically, the tenth joint scarcely longer than wide. Eyes rather small but evidently longer than the tempora. Prothorax about as long as wide; horn rather stout, not constricted at base, fully one half longer than wide, more than one third the width of the prothorax, margin not dentellate, crest well developed, with nondentellate margin. Elytra four fifths longer than wide, obviously widened postmedially, apex obtusely rounded, the sutural notch very narrow, the angles only slightly rounded. Body beneath and legs as usual, the last ventral (♀) with the tip rounded.

Length 3 mm.; width 1 mm.

Santa Rita Mts., Arizona. A single specimen submitted by the late Prof. Snow.

By Casey's table this species would be associated with *montanus* and *balteatus*. From the latter it may at once be distinguished by the presence of the intermixed erect hairs of the elytra, and from the former by the unmodified elytral apices in the female.

*Notoxus brevisculus* n. sp. Size small, form rather stout, especially in the female; dusky testaceous, elytra with a more or less bilunate black fascia at, or a little behind, the apical third, each with a scutellar spot and an antemedian lateral spot, both rather small, and in the darker specimens rather indistinctly outlined or even diffusely connected. Surface distinctly shining; vestiture rather fine; abundantly intermixed with moderately long suberect hairs. Antennæ scarcely longer than the head and prothorax, distinctly though not strongly incrassate apically, the tenth joint not, or but slightly, longer than wide. Head and prothorax sparsely very finely punctate; eyes rather small, subequal in length to the tempora. Horn narrow, feebly constricted basally, at its widest part scarcely one fourth the width of the prothorax, its margin moderately reflexed, even; crest well defined, nondentellate. Prothorax transversely globose. Elytra three-fourths longer than wide, becoming gradually widest behind the middle, more noticeably so in the female; apices in the male separately obliquely truncate, the external angle subdentiform; in the female broadly conjointly subtruncate, the sutural angles nearly rectangular. Body beneath varying in color from testaceous to piceous, finely punctate and pubescent as usual. Last ventral of the male narrowly truncate at tip, and with a rounded or subtransverse impression before the apex; in the female with the tip subangulate and not impressed.

Length 2.3-2.8 mm.; width .85-1 mm.

California, Plumas Co. and Eldorado Co. (Nunenmacher); Tallac (Fenyès). The type is a male from Plumas Co.

This species may be placed near *nevadensis* in Casey's table, some examples of which it closely agrees with in its elytral markings. It is a smaller species than *nevadensis*, with relatively shorter elytra, and with much narrower non-dentellate pronotal horn.

*Notoxus pallidus* n. sp. Elongate, testaceous, elytra each with a small suboval discal fuscous spot at about the apical two fifths. Pubescence abundantly intermixed with long erect hairs; integuments finely evenly not densely punctate, moderately shining. Antennæ about half as long as the body, feebly incrassate, the tenth joint nearly one half longer than wide. Eyes rather large, distinctly longer than the tempora. Prothorax subglobular, the horn (♂) less than one third the thoracic width, about twice as long as wide, not constricted at base, narrowed from apical third,

the apex narrowly rounded, margin with one or two denticles posteriorly; crest well developed, margin not dentellate. Elytra elongate, parallel, slightly more than twice as long as wide, apices (♂) not prolonged or truncate, sutural angles rounded. Body beneath as usual; last ventral segment (♂) broadly transversely impressed toward the apex, the margin feebly truncate.

Length 3.7-3.9 mm.; width 1.2-1.25 mm.

Described from two male specimens taken at Yuma, Arizona, by Dr. Fenyes.

This species by the above characters is separable easily from all previously described forms. It would by Casey's table fall near *cavicornis*. Its true relationship may be more definitely determined when the female becomes known.

*Notoxus arizonensis* n. sp. Form rather slender, rufotestaceous, feebly shining, elytra with rather narrow more or less bilunate subapical and median transverse blackish or dusky fasciæ, and with a subsutural dusky spot at base, all subject to some variation in development, the basal spot becoming subobsolete in the less distinctly marked specimens. Vestiture cinereous, short, fine, moderately close, recumbent, intermixed on the elytra with sparse short semierect hairs, which are quite inconspicuous. Antennæ longer than the head and prothorax, scarcely thickened apically, the tenth joint one third longer than wide. Prothorax slightly wider than the head, finely punctate with a tendency toward strigosity at sides anteriorly; horn well developed, one third to two fifths as wide as the prothorax in the male, obviously wider on the female, margins moderately reflexed, especially at apex, but not dentellate; crest feebly margined, not dentellate. Elytra about two thirds wider than the prothorax, twice as long as wide or slightly more, slightly or scarcely inflated posteriorly, punctuation fine but moderately close, apices rather broadly conjointly rounded as viewed from above, with a minute sutural notch, similar in the sexes. Body beneath finely punctate and pubescent. In the male the last ventral segment is scarcely longer than the preceding, the apex distinctly truncate, the truncation just perceptibly anteriorly arcuate, with its limits broadly subangulate. In the female the last ventral is as a rule nearly twice as long as the preceding, the apex rounded.

Length 3.3-4 mm.; width 1.1-1.25 mm. Southern Arizona.

The type is a male from the Chiricahua Mts., taken by Mr. V. L. Clemence, July 9. Other examples are from the Huachuca Mts., July (Clemence), and from Nogales, August (Nunemacher). The species in its elytral markings is almost an exact reproduction of *delicatus* Csy., in the latter however the erect hairs of the upper surface are more marked, the thoracic horn distinctly dentellate, the crest obsolete, and the sexual characters

at the ventral apex different. *Arizonensis* should follow *delicatus* in the table given by Casey.

**Notoxus montanus** Csy. This species, which was described from a unique female specimen from Colorado, is rather widely distributed in the southern Rocky Mountain region. Specimens are known to me from Colorado—Florissant, Aug. 6 (Rohwer); New Mexico—Santa Fé, July (Fenyès); Pecos—June (Cockerell); Arizona—Chiricahua and Huachuca Mountains (Clemence); Flagstaff (Fenyès); and Williams (collected by the writer).

In the male the front tibiæ are toothed internally as in *calcaratus*, the last ventral segment is truncate, the truncation feebly arcuate-emarginate; sutural angles of elytra rounded in some examples, seemingly very faintly produced in others.

The identity of this species has been established by Col. Casey, who has kindly compared Chiricahua examples with his type.

**Notoxus similis** n. sp. Moderately elongate, shining, recumbent pubescence intermixed with numerous semierect setæ of moderate length. Head and prothorax rufous to rufopiceous, the horn paler; elytra rufotestaceous, with a basal spot each side of the suture narrowly connected with a smaller lateral spot (sometimes absent), a more or less biarcuate median fascia, and the apex black; the tips becoming indefinitely paler, chiefly from transmitted light. Antennæ, legs and body beneath rufotestaceous, the abdomen piceous. Antennæ nearly half as long as the body, very feebly incrassate apically, the tenth joint about one half longer than wide. Head smaller than the prothorax, distinctly, not very sparsely punctate, tempora oblique, broadly arcuate, nearly as long as the eyes. Prothorax as long as wide, moderately closely punctate; horn (♂) rather stout, crest well developed, reflexed margins not dentellate; in the ♀ distinctly broader and a little constricted basally. Elytra varying from slightly less to slightly more than twice as long as wide, feebly inflated at middle, subbasal transverse impression distinct, apices slightly prominent, the sutural angles feebly sinuately produced in both sexes. Body beneath finely punctate and pubescent as usual. Last ventral of male distinctly arcuately emarginate at apex, front tibiæ toothed at the middle of the inner side.

Length 3.3–3.6 mm.; width 1.1–1.35 mm.

The type is a male from Glenwood Springs, Colorado. Other examples are from Antonito, Colorado, and Santa Fé, New Mexico—all collected by Dr. Fenyès.

This species is in all essentials very similar to *montanus* Csy., and females of the two cannot always be determined with certainty. The dark markings are as a rule less developed at the elytral base in *similis*, and the punctuation of the head and thorax is typically stronger and closer, but these characters are both variable. The prothoracic horn is notably stouter in the



male of *similis* than in the same sex of *montanus*, being scarcely more than one half longer than wide and more obviously wider than crest. In *montanus* the sexual disparity in the size of the horn is very great. The truncature of the last ventral segment ( $\delta$ ) is distinctly more strongly emarginate in *similis* than in *montanus*.

Although agreeing in the dentate male front tibiæ with *calcaratus*, both *montanus* and *similis* differ considerably from the latter in general habitus, and resemble rather *bifasciatus*, which of course is very distinct by its interrupted pale elytral fasciæ and the simple fore tibiæ in the male.

*Notoxus intermedius* n. sp. Moderately stout, testaceous; elytral markings, consisting of a small basal subsutural spot on each, a median transverse fascia and a small subapical one, black. Both the basal and subapical marks are, however, either entirely wanting or but faintly indicated in more than half the specimens seen. Decumbent pubescence not dense, intermixed with semierect hairs of moderate length; integuments shining, moderately closely finely punctate. Antennæ scarcely or feebly incrassate apically, the tenth joint scarcely one half longer than wide. Eyes a little longer than the tempora. Prothoracic horn ( $\delta$ ) moderately stout, fully one half longer than wide, not constricted at base, margin not dentellate except basally, broadly evenly rounded apically; crest well developed, margin not dentellate. In the female the horn is wider and constricted basally. Elytra twice as long as wide or very nearly so, feebly inflated post-medially, sutural angles rounded, not distinctly produced in the male, a little produced and with a slight external sinuation in the female. Beneath finely punctate and pubescent; legs moderate, the anterior tibiæ toothed at the middle of the inner margin in the male; last ventral not impressed, the apex distinctly emarginato-truncate in the male, subacute and narrowly rounded at apex in the female.

Length 3.2-4 mm.; width 1.1-1.35 mm.

Described from a series of thirteen specimens taken by Dr. Fenyes at Bishop and Olancho, Inyo, Co., California. The type is a male from Bishop.

This species, in its fully marked form, is closely similar to *calcaratus*, which differs in its much longer and more numerous elytral setæ, stouter prothoracic horn with distinctly dentellate side margins, sutural angles not produced in the female, and with the last ventral in the male impressed and feebly truncate, but not emarginate at apex. The sexual characters are nearly as in *montanus* and *similis*, especially the later, but the size and general appearance are nearly as in *calcaratus*.